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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CLASSIFICATION
09/748,000	12/14/2000	Robert Olanoff	004586-1000	

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EXAMINER

SCOTT JAMES R

ARTICLE CHAPTER

DATE MAILED 08/26/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding

# Office Action Summary

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Application No.  
09/738,000

Examiner  
James R Scott

Applicant(s)  
OLODORT ET AL.

Art Unit  
2832

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☐ Responsive to communication(s) filed on \_\_\_\_.

2a) ☐ This action is FINAL.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 1-38 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-10, 12, 14-17, 19-22 and 24-38 is/are objected to.

7) ☒ Claim(s) 11, 13, 18 and 23 is/are objected to.

## Application Papers

8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 14 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.

12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some \* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
- ☐ Certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13.

- ☒ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: Rule 313 letter-withdrawal from issue.

**DETAILED ACTION****Prosecution Reopened**

Prosecution on the merits of this application is reopened because a critical Information disclosure statement filed on 11-13-2002 was collated with the allowed application 09/738,000 after the Notice of Allowance was mailed on 5-06-2003. The critical IDS was made of record in the application on 7/21/2002. It must be noted that the critical information disclosure statement was timely filed with the USPTO pursuant to the issuance of a PCT search report prior to the initial examination of SN 09/738000. The USPTO examiner became independently aware of the PCT search report during the Chapter 2 examination of PCT/US01/49492, which is a continuation of U.S. Application No. 09/738,000. The PCT Chapter 1 prior art search was made by a European Patent Office (EPO) examiner. Applicants critical IDS, which corresponds to the PCT chapter 1 search report, was not made of record until 7/21/2002 and the IDS contains at least six references which were not cited or considered by the USPTO Examiner prior to the allowance of Serial No. 09/738,000. Additionally, these new references were not cited by applicant in the five information disclosure statements filed on 3-26-2001, 5-27-2001, 03-01-2002, 9-26-2002 and 4-21-2003.

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**The indicated allowability of claims 1-38 is withdrawn** in view of the newly discovered reference(s) cited in applicants critical IDS filed 11/13/2002 made of

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record in this application on July 21,2003. Rejections based on the newly cited reference(s) are stated below.

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### ***`Drawings***

The drawings filed on 12-14-2000 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review," PTO-948, appended to Paper No. 12. In order to avoid abandonment of this application, correction is required in reply to the Office action since allowable subject matter has been indicated (See Summary, pages 7 and 8 of this action). The correction will not be held in abeyance.

### **Claims**

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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Claims 1,2,7,14,17,19-21 and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by the United Kingdom patent document GB 2,315,162 A (BEHAVIOR TECH COMPUTER CORP). Note figures 1-4, plurality of legs 21,32, each leg including a bottom surface (not numbered) and a spring denoted by the

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resilient membrane cap 16 abutting against the non-numbered bottom surfaces of the legs 21,32.

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Claims 1-6,8,10,12,14-16,17 and 24-27, and also 33 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by the European patent document 966,010 A (FUJITSU TAKAMISAWA COMPONENTS L (JP)). Note column 17, line 20 to column 18, line 24; column 19, line 56 to column 20, line 1 and column 48, line 19 to column 52, line 35. Note also Figures 6-9 and 25-28B. In the figures 6-9 and 25-28B, note that the bottom surfaces of the legs at 78 and 180 are pivotally engaged with and constrained at the base.

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Claims 14-16,19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by HON (U.S. Patent No. 5,986,277 A).

The plurality of legs are interleaved at 36,26,261 where a rigid pivot for the legs 20,20 does not exist at the midportion of the legs. Only a sliding interfit connection exists between the legs at this juncture. The legs 20,30 have no flanges and the legs are pivoted to the base 10 at 32,12 and 22,121. Lateral movement is constrained due to the rigid pivotable connection of the lower parts of the legs to the base at 12,121.

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Claims 28,29 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by the PATENTS OF JAPAN, Publication No. 05-109333, 30 April 1993 (NEC TOHOKU LTD).

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The cap 1 is retained in its upward position by the plate spring mechanism 4, which includes lower legs and at least one upper biasing spring plate portion located under the keytop. Note the abstract and the sole figure on the abstract page and figures 1-3 of the attached Japanese patent document 05-109333.

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Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikegami et al (U.S. Patent No. 5,779,030 A).

Note the link plate assembly 220,221,222 including parts 221,222 which are interleaved together without a pivot point approximately central o the plurality of link plates 21,2222. The plurality of link plates, which can also be referred to as legs, include non-numbered bottom surfaces with a spring engaging at least one bottom of a leg noting part 240 of the spring abutting against the non numbered undersurface of leg 21. Note figures 5-9B and column 5, line 9 to column 8, line 4. Since part 240 of the spring abuts against at least one bottom surface of a leg or link plate the structural configuration does not preclude the spring from abutting against the bottom surface of the other leg or link plate.

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Claims 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese patent document JP-55-096516 A (PIONEER COMMUNICATIONS KK). Note figure 8 and the spring and its first and second ends 33 which abut against compliant type material at 36 or 37. Note the details of the spring member in figures 7a and 7b.

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Claims 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by THE PATENT ABSTRACTS OF JAPAN, Publication No. 06-103851 A (15 April 1994). Note the abstract and the disc spring 2 in the sole figure. The disc spring 2 provides stable opening and closing operations with respect to the key 5,5b.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the United Kingdom patent document GB 2,315,162 A (BEHAVIOR TECH COMPUTER CORP).

Note page 2, last paragraph to page 4, paragraph 2 and Figures 1-4. Each leg has its own geometric center determined by shape and mass and each leg is made of an undulating shape due to the mass and shape of portions 25 or 34 thereby constituting well known design criteria which would have been obvious to one skilled in the switch arts at the time applicants invention was made.

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Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the European patent document 966,010 A (FUJITSU TAKAMISAWA COMPONENTS LIMITED). It would have been obvious to one skilled in the art at the time the invention was made that each of the legs of each actuating mechanism illustrated in figures 6-9 and 25-28B has its own geometric center determined by shape and mass and each leg has an undulating configuration

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Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over HON (U.S. Patent No. 5,986,277 A).

It would have been obvious to one having ordinary skill in the art at the time the invention was made that each of the legs 20,30 of each actuating mechanism illustrated in figures 1 and 3 has its own geometric center determined by its shape and mass and each leg has an undulating configuration.

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Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the PATENTS OF JAPAN, Publication No. 05-109333, 30 April 1993 (NEC TOHOKU LTD) in view of Sims, Jr. (U.S. Patent No. 3,969,600).

The PATENTS OF JAPAN, Publication No. 05-109333 lacks a teaching that the plurality of legs of plate spring 4 are made of metal and may be bowed.

Such a teaching is provided by Sims, Jr. who teaches at column 3, line 62 to column 4, line 13 and figures 2-5 that the spring 30 includes convex Side surfaces made of metal such as the steel type used for steel measuring tapes.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the legs of the Japanese switch support to include spring supports made of metal as suggested by Sims, Jr. To provide more flexibility in the resilient part of the actuating mechanism.

### **Cited References**

The European patent document (EP 1,049,119 A2) discloses the use of a spring type biasing mechanism at 8 which has a pivoting section 1a, 14a. Note Fig. 1.

The PATENT ABSTRACTS OF JAPAN (Publication No. 11-111101) discloses a crosslink mechanism, which includes two link members 7 and 8.

Wild et al (U.S. Patent No. 4,793,601 A) discloses the use of a meandering shaped key spring.

Waiser et al (U.S. Patent No. 4,423,294 A) discloses a membrane switch assembly with a dome shaped spring mechanism.

The European patent document (EP 0660365 A1) discloses the use of a convex spring 14 noting figures 3b and 2b, the spring having ends 14a, 14b bent at right angles for a rigid support mounting within the switch casing 2,2a.

Musgrave, Patterson, the French patent document (FR373199 A) and Teetor disclose miscellaneous spring devices of general interest.

### **SUMMARY**

Allowability of claims 1-38 has been withdrawn.

Claims 1-10,12,14-17,19-22 and 24-38 are rejected.

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Claims 11,13,18 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

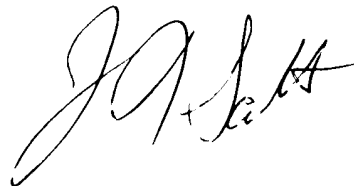
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R Scott whose telephone number is 703-308-2013. The examiner can normally be reached on any workday between 1-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 703-308-7619. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3432 for regular communications and 703-305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

JRScott: jrs

August 12, 2003



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